

Abstract

The cellular response to ultraviolet radiation exposure has been characterized on the
5 molecular level through the use of high density gene array technology. Nucleic acid molecules
and protein molecules, the expression of which are repressed or induced in response to ultraviolet
radiation exposure, are identified according to a temporal pattern of altered expression post
ultraviolet radiation exposure. Methods are disclosed that utilized these ultraviolet radiation-
regulated molecules as markers for ultraviolet radiation exposure. Other screening methods of
10 the invention are designed for the identification of compounds that modulate the response of a
cell to ultraviolet radiation exposure. The invention also provides compositions useful for drug
screening or pharmaceutical purposes.

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